

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
20 October 2005 (20.10.2005)

PCT

(10) International Publication Number  
**WO 2005/097073 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 9/14**, 9/20, 9/22, 9/48, 9/52, 9/66, 9/70, A61F 2/00

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(21) International Application Number:  
PCT/US2005/010801

(22) International Filing Date: 30 March 2005 (30.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/558,047 31 March 2004 (31.03.2004) US

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: MACROMOLECULAR DELIVERY SYSTEMS FOR NON-INVASIVE IMAGING, EVALUATION AND TREATMENT OF ARTHRITIS AND OTHER INFLAMMATORY DISEASES

(57) Abstract: This invention relates to biotechnology, more particularly, to water-soluble polymeric delivery systems for the imaging, evaluation and/or treatment of rheumatoid arthritis and other inflammatory diseases. Using modern MR imaging techniques, the specific accumulation of macromolecules in arthritic joints in adjuvant-induced arthritis in rats is demonstrated. The strong correlation between the uptake and retention of the MR contrast agent labeled polymer with histopathological features of inflammation and local tissue damage demonstrates the practical applications of the macromolecular delivery system of the invention.



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